Contents to volume 324

Research Letters

A novel human tyrosine kinase gene inducible in T cells by interleukin 2 (FEBS 12506) *N. Tanaka, H. Asao, K. Ohtani, M. Nakamura, K. Sugamura* 1

Peroxidase-catalyzed co-oxidation of indole-3-acetic acid and xanthene dyes in the absence of hydrogen peroxide (FEBS 12540) *S.N. Krylov, A.B. Chebotareva* 6

Dual relationships of xylitol and alcohol dehydrogenases in families of two protein types (FEBS 12516) *B. Persson, J. Hallborn, M. Walfridsson, B. Hahn-Hägerdal, S. Keränen, M. Penttilä, H. Jörnvall* 9

Three-dimensional structural resemblance between the ribonuclease H and connection domains of HIV reverse transcriptase and the ATPase fold revealed using graph theoretical techniques (FEBS 12525) *P.J. Artymiuk, H.M. Grindley, K. Kumar, D.W. Rice, P. Willett* 15

Isolation and characterization of PSII core complexes from a brown alga, *Laminaria saccharina* (FEBS 12542) *D. Douady, B. Rousseau, C. Berkaloff* 22

Efficient transient expression system based on square pulse electroporation and in vivo luciferase assay of fertilized fish eggs (FEBS 12535) *F. Müller, Z. Lele, L. Váradi, L. Menczel, L. Orbán* 27

Glyceraldehyde-3-phosphate activates auto-ADP-ribosylation of glyceraldehyde-3-phosphate dehydrogenase (FEBS 12539) *A.Y. Kots, E.A. Sergienko, T.V. Bulargina, E.S. Severin* 33

Interaction of NBD-talin with lipid monolayers: A film balance study (FEBS 12515) *C. Dietrich, W.H. Goldmann, E. Sackmann, G. Isenberg* 37

Stabilization of a compact conformation of monomeric GroEL at low temperature by adenine nucleotides (FEBS 12544) *N.M. Lissin, S.M. Hemmingsen* 41

A structural model for the glutamate-specific endopeptidase from *Streptomyces griseus* that explains substrate specificity (FEBS 12545) *J.A.R.G. Barbosa, R.C. Garratt, J.W. Saldanha* 45

Calvasculin, as a factor affecting the microfilament assemblies in rat fibroblasts transfected by *src* gene (FEBS 12550) *Y. Watanabe, N. Usada, H. Minami, T. Morita, S.-i. Tsugane, R. Ishikawa, K. Kohama, Y. Tomida, H. Hidaka* 51

Interaction of avidin with spin-labelled *N*-biotinyl phosphatidylethanolamine in a lipid membrane (FEBS 12546) *M.J. Swamy, D. Marsh* 56

Purification and functional characterization of β-adrenergic receptor kinase expressed in insect cells (FEBS 12547) *P. Söhlemann, M. Hekman, C. Buchen, J.S. Elce, M.J. Lohse* 59

Subunit-specific block of cloned NMDA receptors by argiotoxin$_{636}$ (FEBS 12549) *M. Raditsch, J.P. Ruppersberg, T. Kuner, W. Günther, R. Schoepfer, P.H. Seeburg, W. Jahn, V. Witzemann* 63

Mutational analysis of the specific priming signal essential for DNA replication of the broad host-range plasmid RSF1010 (FEBS 12551) *Y. Honda, T. Akioka, S. Takebe, K. Tanaka, D. Miao, A. Higashi, T. Nakamura, Y. Taguchi, H. Sakai, T. Komano, M. Bagdasarian* 67

Expression of PP2A B regulatory subunit β isotype in rat testis (FEBS 12552) *Y. Hatano, H. Shima, T. Haneji, A.B. Miura, T. Sugimura, M. Nagao* 71

Characterization of 3′:5′ cyclic nucleotide phosphodiesterase activities of mouse neuroblastoma N18TG2 cells (FEBS 12553) *M. Giorgi, C. Caniglia, G. Scarsella, G. Augusti-Tocco* 76

Characterisation of a chimeric hD_3/D_2 dopamine receptor expressed in CHO cells (FEBS 12548) *G. McAllister, M.R. Knowles, S. Patel, R. Marwood, F. Emms, G.R. Seabrook, M. Graziano, D. Borkowski, P.J. Hey, S.B. Freedman* 81

^{1}H and ^{15}N assignments and secondary structure of the Src SH3 domain (FEBS 12554) *H. Yu, M.K. Rosen, S.L. Schreiber* 87

^{1}H and ^{15}N assignments and secondary structure of the PI3K SH3 domain (FEBS 12555) *S. Koyama, H. Yu, D.C. Dalgarno, T.B. Shin, L.D. Zydowsky, S.L. Schreiber* 93

P-glycoprotein-mediated transcellular transport of MDR-reversing agents (FEBS 12556) *T. Saeki, K. Ueda, Y. Tanigawara, R. Hori, T. Komano* 99

α-Helical distorting substitutions disrupt coupling between m3 muscarinic receptor and G proteins (FEBS 12558) *K. Duerson, R. Carroll, D. Clapham* 103

The glucose transporter of *Escherichia coli*: Purification and characterization by Ni$^+$ chelate affinity chromatography of the IIBC^{Glc} subunit (FEBS 12559) *U. Waeber, A. Buhr, T. Schunk, B. Erni* 109

Phosphatidylglycerol dependent protein translocation across the *Escherichia coli* inner membrane is inhibited by the anticancer drug doxorubicin: Evidence for an electrostatic interaction between the signal sequence and phosphatidylglycerol (FEBS 12561) *D.A. Phoenix, F.A. de Wolf, Rutger, W.H.M. Staffhorst, C. Hikita, S. Mizushima, B. de Kruijff* 113

Site-directed mutagenesis in hemoglobin: Effect of some mutations at protein interfaces (FEBS 12480) *B. Vallone, P. Vecchini, V. Cavalli, M. Brunori* 117

A distal region of the CALC-1 gene is necessary for regulated alternative splicing (FEBS 12541) *D.A. Horn, D.S. Latchman* 123

Molecular cloning of a human β3-adrenergic receptor cDNA (FEBS 12563) *J.M. Lelias, M. Kaghad, M. Rodriguez, P. Chalon, J. Bonnin, I. Dupre, B. Delpech, M. Bensaid, G. LeFur, P. Ferrara, D. Caput* 127

The in vivo assembly and function of the N- and C-terminal halves of the Tn10-encoded TetA protein in *Escherichia coli* (FEBS 12565) *A. Yamaguchi, Y. Someya, T. Sawai* 131

Application of poly(A)$^+$RNA patterns method for searching of differentially expressed genes (FEBS 12562) *A.A. Chenchik, L.B. Diachenko, R.S. Beabealashvilli* 136

Recombinant $GABA_A$ receptor function and ethanol (FEBS 12564) *E. Sigel, R. Baur, P. Malherbe* 140

A product of phosphatidylinositol-3 kinase is elevated in dividing HT29 colonic epithelial cells (FEBS 12566) *G.J. Dobos, X.R. Wu, A. Traynor-Kaplan* 143

Neurotrophin induced cAMP and IP_3 responses in PC12 cells: Different pathways (FEBS 12567) *M. Knipper, A. Beck, J. Rylett, H. Breer* 147

Characterization of the dimerization process of HIV-1 reverse transcriptase heterodimer using intrinsic protein fluorescence (FEBS 12568) *G. Divita, T. Restle, R.S. Goody* 153

Novel antimicrobial peptides from skin secretion of the European frog *Rana esculenta* (FEBS 12571) *M. Simmaco, G. Mignogna, D. Barra, F. Bossa* 159

In vivo overexpression and purification of *Escherichia coli* tRNA^{ser} (FEBS 12569) *F. Borel, M. Härtlein, R. Leberman* 162

Crystallization of the seryl-tRNA synthetase:tRNA^{ser} complex of *Escherichia coli* (FEBS 12570) *S. Price, S. Cusack, F. Borel, C. Berthet-Colominas, R. Leberman* 167

Published by Elsevier Science Publishers B.V.

Contents to volume 324

Research Letters

A novel human tyrosine kinase gene inducible in T cells by interleukin 2 (FEBS 12506) *N. Tanaka, H. Asao, K. Ohtani, M. Nakamura, K. Sugamura* 1

Peroxidase-catalyzed co-oxidation of indole-3-acetic acid and xanthene dyes in the absence of hydrogen peroxide (FEBS 12540) *S.N. Krylov, A.B. Chebotareva* 6

Dual relationships of xylitol and alcohol dehydrogenases in families of two protein types (FEBS 12516) *B. Persson, J. Hallborn, M. Walfridsson, B. Hahn-Hägerdal, S. Keränen, M. Penttilä, H. Jörnvall* 9

Three-dimensional structural resemblance between the ribonuclease H and connection domains of HIV reverse transcriptase and the ATPase fold revealed using graph theoretical techniques (FEBS 12525) *P.J. Artymiuk, H.M. Grindley, K. Kumar, D.W. Rice, P. Willett* 15

Isolation and characterization of PSII core complexes from a brown alga, *Laminaria saccharina* (FEBS 12542) *D. Douady, B. Rousseau, C. Berkaloff* 22

Efficient transient expression system based on square pulse electroporation and in vivo luciferase assay of fertilized fish eggs (FEBS 12535) *F. Müller, Z. Lele, L. Váradi, L. Menczel, L. Orbán* 27

Glyceraldehyde-3-phosphate activates auto-ADP-ribosylation of glyceraldehyde-3-phosphate dehydrogenase (FEBS 12539) *A.Y. Kots, E.A. Sergienko, T.V. Bulargina, E.S. Severin* 33

Interaction of NBD-talin with lipid monolayers: A film balance study (FEBS 12515) *C. Dietrich, W.H. Goldmann, E. Sackmann, G. Isenberg* 37

Stabilization of a compact conformation of monomeric GroEL at low temperature by adenine nucleotides (FEBS 12544) *N.M. Lissin, S.M. Hemmingsen* 41

A structural model for the glutamate-specific endopeptidase from *Streptomyces griseus* that explains substrate specificity (FEBS 12545) *J.A.R.G. Barbosa, R.C. Garratt, J.W. Saldanha* 45

Calvasculin, as a factor affecting the microfilament assemblies in rat fibroblasts transfected by *src* gene (FEBS 12550) *Y. Watanabe, N. Usada, H. Minami, T. Morita, S.-i. Tsugane, R. Ishikawa, K. Kohama, Y. Tomida, H. Hidaka* 51

Interaction of avidin with spin-labelled *N*-biotinyl phosphatidylethanolamine in a lipid membrane (FEBS 12546) *M.J. Swamy, D. Marsh* 56

Purification and functional characterization of β-adrenergic receptor kinase expressed in insect cells (FEBS 12547) *P. Söhlemann, M. Hekman, C. Buchen, J.S. Elce, M.J. Lohse* 59

Subunit-specific block of cloned NMDA receptors by argiotoxin$_{636}$ (FEBS 12549) *M. Raditsch, J.P. Ruppersberg, T. Kuner, W. Günther, R. Schoepfer, P.H. Seeburg, W. Jahn, V. Witzemann* 63

Mutational analysis of the specific priming signal essential for DNA replication of the broad host-range plasmid RSF1010 (FEBS 12551) *Y. Honda, T. Akioka, S. Takebe, K. Tanaka, D. Miao, A. Higashi, T. Nakamura, Y. Taguchi, H. Sakai, T. Komano, M. Bagdasarian* 67

Expression of PP2A B regulatory subunit β isotype in rat testis (FEBS 12552) *Y. Hatano, H. Shima, T. Haneji, A.B. Miura, T. Sugimura, M. Nagao* 71

Characterization of 3′:5′ cyclic nucleotide phosphodiesterase activities of mouse neuroblastoma N18TG2 cells (FEBS 12553) *M. Giorgi, C. Caniglia, G. Scarsella, G. Augusti-Tocco* 76

Characterisation of a chimeric hD_3/D_2 dopamine receptor expressed in CHO cells (FEBS 12548) *G. McAllister, M.R. Knowles, S. Patel, R. Marwood, F. Emms, G.R. Seabrook, M. Graziano, D. Borkowski, P.J. Hey, S.B. Freedman* 81

^{1}H and ^{15}N assignments and secondary structure of the Src SH3 domain (FEBS 12554) *H. Yu, M.K. Rosen, S.L. Schreiber* 87

^{1}H and ^{15}N assignments and secondary structure of the PI3K SH3 domain (FEBS 12555) *S. Koyama, H. Yu, D.C. Dalgarno, T.B. Shin, L.D. Zydowsky, S.L. Schreiber* 93

P-glycoprotein-mediated transcellular transport of MDR-reversing agents (FEBS 12556) *T. Saeki, K. Ueda, Y. Tanigawara, R. Hori, T. Komano* 99

α-Helical distorting substitutions disrupt coupling between m3 muscarinic receptor and G proteins (FEBS 12558) *K. Duerson, R. Carroll, D. Clapham* 103

The glucose transporter of *Escherichia coli*: Purification and characterization by Ni$^+$ chelate affinity chromatography of the IIBC^{Glc} subunit (FEBS 12559) *U. Waeber, A. Buhr, T. Schunk, B. Erni* 109

Phosphatidylglycerol dependent protein translocation across the *Escherichia coli* inner membrane is inhibited by the anticancer drug doxorubicin: Evidence for an electrostatic interaction between the signal sequence and phosphatidylglycerol (FEBS 12561) *D.A. Phoenix, F.A. de Wolf, Rutger, W.H.M. Staffhorst, C. Hikita, S. Mizushima, B. de Kruijff* 113

Site-directed mutagenesis in hemoglobin: Effect of some mutations at protein interfaces (FEBS 12480) *B. Vallone, P. Vecchini, V. Cavalli, M. Brunori* 117

A distal region of the CALC-1 gene is necessary for regulated alternative splicing (FEBS 12541) *D.A. Horn, D.S. Latchman* 123

Molecular cloning of a human β3-adrenergic receptor cDNA (FEBS 12563) *J.M. Lelias, M. Kaghad, M. Rodriguez, P. Chalon, J. Bonnin, I. Dupre, B. Delpech, M. Bensaid, G. LeFur, P. Ferrara, D. Caput* 127

The in vivo assembly and function of the N- and C-terminal halves of the Tn10-encoded TetA protein in *Escherichia coli* (FEBS 12565) *A. Yamaguchi, Y. Someya, T. Sawai* 131

Application of poly(A)$^+$RNA patterns method for searching of differentially expressed genes (FEBS 12562) *A.A. Chenchik, L.B. Diachenko, R.S. Beabealashvilli* 136

Recombinant $GABA_A$ receptor function and ethanol (FEBS 12564) *E. Sigel, R. Baur, P. Malherbe* 140

A product of phosphatidylinositol-3 kinase is elevated in dividing HT29 colonic epithelial cells (FEBS 12566) *G.J. Dobos, X.R. Wu, A. Traynor-Kaplan* 143

Neurotrophin induced cAMP and IP_3 responses in PC12 cells: Different pathways (FEBS 12567) *M. Knipper, A. Beck, J. Rylett, H. Breer* 147

Characterization of the dimerization process of HIV-1 reverse transcriptase heterodimer using intrinsic protein fluorescence (FEBS 12568) *G. Divita, T. Restle, R.S. Goody* 153

Novel antimicrobial peptides from skin secretion of the European frog *Rana esculenta* (FEBS 12571) *M. Simmaco, G. Mignogna, D. Barra, F. Bossa* 159

In vivo overexpression and purification of *Escherichia coli* tRNA^{ser} (FEBS 12569) *F. Borel, M. Härtlein, R. Leberman* 162

Crystallization of the seryl-tRNA synthetase:tRNA^{ser} complex of *Escherichia coli* (FEBS 12570) *S. Price, S. Cusack, F. Borel, C. Berthet-Colominas, R. Leberman* 167

Published by Elsevier Science Publishers B.V.

Glutamate receptors of *Drosophila melanogaster*: Primary structure of a putative NMDA receptor protein expressed in the head of the adult fly (FEBS 12573) *A. Ultsch, C.M. Schuster, B. Laube, H. Betz, B. Schmitt* 171

Rabbit masseter expresses the cardiac α myosin heavy chain gene: Evidence from mRNA sequence analysis (FEBS 12574) *A. d'Albis, M. Anger, A.-M. Lompré* 178

A tandem repeat of the SPKK peptide motif induces Ψ-type DNA structures at alternating AT sequences (FEBS 12576) *F. Bailly, C. Bailly, P. Colson, C. Houssier, J.-P. Hénichart* 181

A negative charge in the M2 transmembrane segment of the neuronal α7 acetylcholine receptor increases permeability to divalent cations (FEBS 12578) *A.V. Ferrer-Montiel, M. Montal* 185

MAP kinase activation during heat shock in quiescent and exponentially growing mammalian cells (FEBS 12577) *M.-F. Dubois, O. Bensaude* 191

Substitution of potential metal-coordinating amino acid residues in the zinc-binding site of endopeptidase-24.11 (FEBS 12580) *H. Le Moual, B.P. Roques, P. Crine, G. Boileau* 196

Correlation between phospholipase A_2 activity and intra-Golgi protein transport reconstituted in a cell-free system (FEBS 12579) *M. Tagaya, N. Henomatsu, T. Yoshimori, A. Yamamoto, Y. Tashiro, T. Fukui* 201

Expression of Kv2.1 delayed rectifier K^+ channel isoforms in the developing rat brain (FEBS 12581) *J.S. Trimmer* 205

Ras proteins increase Ca^{2+}-responsiveness of smooth muscle contraction (FEBS 12582) *S. Satoh, H. Rensland, G. Pfitzer* 211

In vitro reconstitution of the proteolytic system responsible for hydrolysis of the 13S globulin in buckwheat seeds (FEBS 12585) *Y.E. Dunaevsky, M.A. Belozersky, N.E. Voskoboynikova* 216

Cloning and functional expression of a brain G-protein-coupled ATP receptor (FEBS 12583) *T.E. Webb, J. Simon, B.J. Krishek, A.N. Bateson, T.G. Smart, B.F. King, G. Burnstock, E.A. Barnard* 219

Identification, sequence analysis, and characterization of cDNA clones encoding two granzyme-like serine proteinases from rat duodenum (FEBS 12586) *A.Y. Amerik, S.V. Yarovoi, V.G. Grigorenko, V.K. Antonov* 226

Amyloidogenicity of rodent and human βA4 sequences (FEBS 12584) *T. Dyrks, E. Dyrks, C.L. Masters, K. Beyreuther* 231

Thermal transitions in the purple membrane from *Halobacterium halobium* (FEBS 12593) *V.L. Shnyrov, P.L. Mateo* 237

The human muscarinic M1 acetylcholine receptor, when expressed in CHO cells, activates and downregulates both $G_q\alpha$ and $G_{11}\alpha$ equally and non-selectively (FEBS 12592) *I. Mullaney, F.M. Mitchell, J.F. McCallum, N.J. Buckley, G. Milligan* 241

cDNA cloning and expression of cysteine synthase B localized in chloroplasts of *Spinacia oleracea* (FEBS 12575) *K. Saito, K. Tatsuguchi, I. Murakoshi, H. Hirano* 247

Expression in *E. coli* and purification of a chimeric p22-NS3 recombinant antigen of Hepatitis C Virus (HCV) (FEBS 12588) *S. Osborne, E. Cecconato, S. Griva, F. Garetto, R. Calogero, C. Rosa, F. Bonelli* 253

The role of N-glycosylation in the targeting and stability of GLUT1 glucose transporter (FEBS 12589) *T. Asano, K. Takata, H. Katagiri, H. Ishihara, K. Inukai, M. Anai, H. Hirano, Y. Yazaki, Y. Oka* 258

Reduced glutamate decarboxylase activity in rat islet β cells which survived streptozotocin-induced cytotoxicity (FEBS 12591) *Z. Ling, F. Malaisse-Lagae, W.J. Malaisse, D. Pipeleers* 262

β-Crystallins insolubilized by calpain II in vitro contain cleavage sites similar to β-crystallins insolubilized during cataract (FEBS 12590) *L.L. David, T.R. Shearer* 265

On the origin of a sustained increase in cytosolic Ca^{2+} concentration after a toxic glutamate treatment of the nerve cell culture (FEBS 12594) *B. Khodorov, V. Pinelis, V. Golovina, D. Fajuk, N. Andreeva, T. Uvarova, L. Khaspekov, I. Victorov* 271

On the role of intracellular concentration of Ca^{2+} and H^+ in thymocyte death after irradiation (FEBS 12595) *V.V. Shaposhnikova, O.R. Dobrovinskaya, A.S. Gukovskaya, E.S. Trepakova, Y.N. Korystov* 274

Contraction of smooth muscle by activation of endothelin receptors on autonomic neurons (FEBS 12560) *M. Takimoto, T. Imui, T. Okada, Y. Urade* 277

Requirement of the calcium channel β subunit for functional conformation (FEBS 12598) *S. Nishimura, H. Takeshima, F. Hofmann, V. Flockerzi, K. Imoto* 283

Visualization of the morphology of purple membrane surfaces by monoclonal antibody techniques (FEBS 12599) *N. Yamaguchi, Y. Jinbo, M. Arai, K. Koyama* 287

An interaction of β-amyloid with aluminium in vitro (FEBS 12597) *C. Exley, N.C. Price, S.M. Kelly, J.D. Birchall* 293

The catalytic domain of human hepatitis delta virus RNA: A proton nuclear magnetic resonance study (FEBS 12600) *B.-S. Lee, H.-N. Wu, T.-H. Huang* 296

Interaction of mutagenic tryptophan pyrolysate with DNA: CD spectral study on the binding specificity (FEBS 12601) *T. Inohara, M. Tarui, M. Doi, M. Inoue, T. Ishida* 301

Two-dimensional ^1H NMR spectra of ferricytochrome c_{551} from *Pseudomonas aeruginosa* (FEBS 12602) *J.M. Moratal, A. Donaire, J. Salgado, H.R. Jiménez, J. Castells, M. Piccioli* 305

Sunlight-induced mutagenicity of a common sunscreen ingredient (FEBS 12603) *J. Knowland, E.A. McKenzie, P.J. McHugh, N.A. Cridland* 309

Identification of a cross-linked double-peptide from the catalytic site of the Ca^{2+}-ATPase of sarcoplasmic reticulum formed by the Ca^{2+}- and pH-dependent reaction with ATP γP-imidazolidate (FEBS 12609) *Z. Gutowski-Eckel, K. Mann, H.G. Bäumert* 314

Evidence for three binding sites for C3 (hemolytically inactive), C3b and C3d on a CR2-positive Burkitt lymphoma-derived cell line (Raji) (FEBS 12604) *G. Barile, L. Di Renzo, M. Lipari, L. Frati, A. Faggioni* 319

Participation of cathepsin B in processing of antigen presentation to MHC class II (FEBS 12606) *Y. Matsunaga, T. Saibara, H. Kido, N. Katunuma* 325

Amidating processing enzyme complex for bioactive peptides (PAM) shows differences in specific activity and form in secretory granules isolated from the proximal and distal parts of the hypothalamo-neurohypophyseal tract in rats (FEBS 12607) *H.-M. Hu, N.A. Thorn* 331

Characterization of NCAM diversity in cultured neurons (FEBS 12608) *G. Gegelashvili, A.-M. Andersson, A. Schousboe, E. Bock* 337

Detection of a 10 kDa breakdown product containing the C-terminus of the D1-protein in photoinhibited wheat leaves suggests an acceptor side mechanism (FEBS 12610) *P.M. Cánovas, J. Barber* 341

Mos is degraded by the 26S proteasome in a ubiquitin-dependent fashion (FEBS 12613) *N. Ishida, K. Tanaka, T. Tamura, M. Nishizawa, K. Okazaki, N. Sagata, A. Ichihara* 345

Receptor-binding capability of pancreatic phospholipase A_2 is separable from its enzymatic activity (FEBS 12614) *J. Ishizaki, J. Kishino, H. Teraoka, O. Ohara, H. Arita* 349

Production of monoclonal antibodies that inhibit ADP-ribosylation of small GTP-binding proteins catalyzed by *Clostridium botulinum* ADP-ribosyltransferase C3 (FEBS 12615) *S. Toratani, N. Sekine, T. Katada, H. Yokosawa* 353

Glucuronidation of thyroid hormone by human bilirubin and phenol UDP-glucuronyltransferase isoenzymes (FEBS 12635) *T.J. Visser, E. Kaptein, A.L. Gijzel, W.W. de Herder, T. Ebner, B. Burchell* 358

The KH domain occurs in a diverse set of RNA-binding proteins that include the antiterminator NusA and is probably involved in binding to nucleic acid (FEBS 12587) *T.J. Gibson, J.D. Thompson, J. Heringa* 361

Author index to Volume 324 367

Contents to Volume 324 372